remote control, auto recloser

Trip fault identification
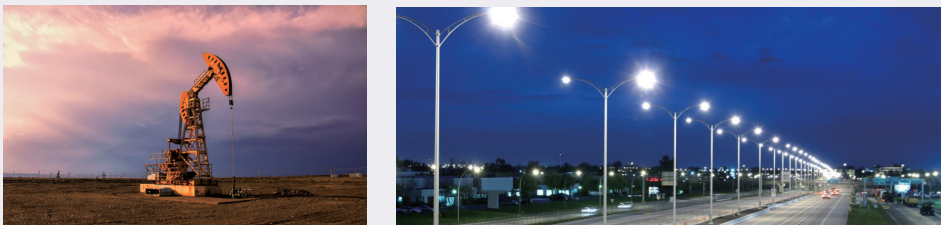
Stable performance, reliable and safe

Over voltage, open circuit, overload protection

Application scenarios

Electricity Protection, Sustainable Electricity

Electrified railway station as power supply, transportation power distribution system, highway electromechanical system

Industrial and mining oil, street lighting system

EV Charging station, water pump moving ring, building power supply

Technical parameter

TYPE		MT84SR-1P	MT84SR-2P	MT84SR-3P	MT84SR-4P
Electrical Characteristics					
Standard		EN 50557			
Power Distribution System		TT - TN - S			
Rated Voltage(Ue)	(V)	230 AC (1)			
Min Rated Voltage(Min Ue)	(V)	85% Ue			
Max Rated Voltage(Max Ue)	(V)	110% Ue			
Rated Insulation Voltage(Ui)	(V)	500			
Dielectric Strength	(V)	2500 AC for 1 minute			
Rated Withstand Voltage(Uimp)	(kV)	4			
Over-voltage Category		III			
Rated Frequency	(Hz)	50			
Leakage making and breaking capacity (IΔm)	(A)	IΔm of the relevant circuit breaker			
Rated condition residual short-circuit current (IΔc)	(A)	IΔc of the relevant circuit breaker			
poles		1	2	3	4
MCB Type		1P - 2P - 3P - 4P			
RCBO Type		2P - 4P			
Rated current (In)	(A)	25 - 40 - 63			
Rated residual operating current (IΔn)	(mA)	30 - 100 - 300 - 500			
Rated non-operating resistance between electrical components and earth (kΩ)		8 (30mA) - 2,5 (100/300/500mA)			
Rated working resistance between live parts and earth	(kΩ)	16 (30mA) - 5 (100/300/500mA)			
Power loss	(W)	Power loss of the Related circuit breaker			
Static Power	(VA)	1	1	1	1
Power of auto reclosing	(VA)	20	20	20	20
Mechanical Characteristics					
The Width of DIN Module		1,5	1,5	1,5	1,5
Reclosing Time Interval	(s)	5 - 20 - 60			
Max Operation Frequency	(oper./h)	30			
Maximum mechanical durability (total number of operations)		10000			
Max. Auto Reclose Cycle		3			
Counter reset time number Continuous recloser operation	(s)	60			
Terminal Part of Breaker	(mm2)	Soft Cable:≤ 1x35 - ≤ 2x16 - ≤ 1x16+2x10			
Rated tightening torque of circuit breaker	(Nm)	3 (IDP) - 2 (IDP NA)			
Installation location		any			
Protection Grade of Circuit Breaker		IP20 () - IP40 ()			
Enviroment Characteristics					
Pollution Grade		2			
Work Temperature	(°C)	-25 +60	-25 +60	-25 +60	-25 +60
Storage Temperature	(°C)	-40 +70			
Relative Humidity		55°C - RH 95%			
Input					
operating mode		Open\Close\COM as circuit breaker opening and closing input (passive opening and closing input)			
Signal description		passive control input, up to 2000m			
Auxiliary Contact Characteristics					
Auxiliary		yes			
Contact Type		Electronic Relay			
Rated Voltage	(V)	250VAC/30VDC			
Rated Current	(A)	5A 250VAC/30VDC			
Frequency	(Hz)	50			
use category		AC12			
Operation Mode		NO\NO\COM As circuit breaker status output（OF\SD)			
Cable Connection	(mm2)	≤ 2,5			
Rated Tightening Torque	(Nm)	0,4			
Operating mode					
Working mode selection		MODE selection button			
Working mode 1		Red light: automatic reclosing, self-resetting overvoltage and undervoltage			
Working mode 2		Green light: self-reset overvoltage and undervoltage			
Working mode 3		red light & green light alternately: manual mode			
Communication parameters					
Baudrate		Default as 9600, Configurable			
Check Digit		No Check digit			
Data Digit		8			
Stop Digit		1			
Device Address		Factory Default Address 1			
Self-resetting overvoltage and undervoltage protection					
Overvoltage action value	(V)	≥275v - - 5s	≥300v - - 1,5s		
Overvoltage recovery value	(V)	255v			
Undervoltage action value	(V)	≤160v - - 3s			
Undervoltage recovery value	(V)	195v			
Auto Reclose Function					
Auto Reclose When Electric Fault Trip		•	•	•	•
Earth Fault Test					
Earthleakage Test					
Reclose Stops when Fault		•	•	•	•
Signal of Reclosing					
Fault Signal Indicator		•	•	•	•
Function of Auto / Manual		•	•	•	•
Auxiliary Contact for Remote Operation		•	•	•	•
Internal Electrical Protection		PTC	PTC	PTC	PTC

matismart
AIoT Electric

iARD Intelligent recloser
MT84SR

Power on with intelligence, safer and more efficient.

Intelligent Recloser Device MT84SR

iARD_MT84SR Remote control and intelligent recloser device can achieve the following functions

- After the circuit breaker has tripped, realize its automatic reclosing
- Auto reclosing program is fixed, 5S - 20S - 60S
- Remote closing/opening circuit breaker, the circuit breaker can be equipped with residual current action protection accessories or other electrical accessories
- Using iARD_MT84SR, automatic control in unattended or remote locations can be realized
- Local control of circuit breaker with handle
- With self-reset over-voltage protection function
- Safe operation on site with padlock attachment

Voltage indicator
green light is on: normal voltage
red light is on: Overvoltage
Orange light is on: undervoltage

Current fault indicator
Green light: current failure
White light: no current fault

Working mode switch
Mode 1: automatic reclosing, self-resetting overvoltage and under-voltage protection
Mode 2: Self-reset overvoltage and under-voltage protection
Mode 3: Manual opening and closing control

27mm

Intelligent reclosing device

MT84SR is an intelligent reclosing device, with overvoltage and undervoltage protection, automatic reclosing, dry contact/RS485 control, trip fault identification, matching Higer MBN/MCN/MDN series products, the width is 27mm.

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iARD Intelligent reclosing device ensures sustainable power supply

I/O control

When the MT84SR is in Auto mode, connect the device to the power supply, and use the i/o interface to remotely control the device to control the opening and closing of the device.

RS485_Modbus control

MT84SR is in Auto mode, connect the device to the power supply, can use RS485 for remote control, control the opening and closing of the device, and can also perform operations such as status reading and address reading through Modbus protocol.

More flexible adaptation

Compatible with circuit breakers 1P, 2P, 3P, 4P

automatic reclosing

After the circuit breaker trips, its automatic reclosing is realized.

Self-resetting overvoltage and undervoltage

Overvoltage trip, undervoltage trip, voltage recovery automatic reclosing
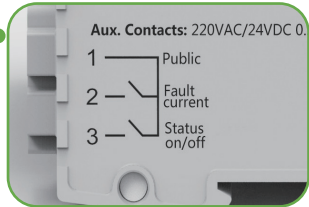
Overvoltage trip
Overvoltage recovery 253v
≥270V
O/V

Undervoltage trip
Undervoltage recovery 195v
≤165V
U/V

Terminal picture

Port	Explanation
Public	Public port
Fault current	Current fault
Status on/off	Switch status

Aux. Contacts: 220VAC/24VDC 0.
1 — Public
2 — Fault current
3 — Status on/off

MT84SR
- When 2, 3 and 1 are disconnected, the device works normally;
- When the current fails, terminals 1 and 2 will be connected and output;
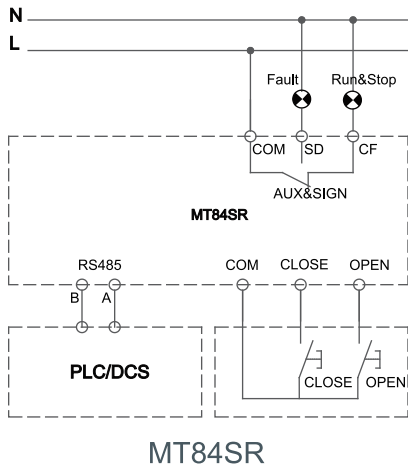- When the device is closed, terminals 1 and 3 are connected to the output;

Open — 4
Close — 5
Public — 6
GND — 7
A+ — 8
B- — 9
RS485
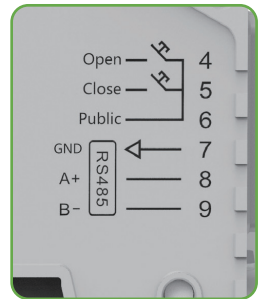
Port	Explanation
Open	Active opening input
Close	Active closing input
Public	Public port
GND	Grounding
RS485_A+	Modbus protocol
RS485_B-	Modbus protocol

MT84SR
- Terminals 4, 5 and 6 are remote input ports;
- Terminals 7, 8 and 9 are RS485 control ports.

Wiring diagram

Port	Explanation
L	Live wire
N	Neutral line
CLOSE	Active closing input
OPEN	Active opening input
com	Active common terminal
RS485_A	Modbus protocol
RS485_B	Modbus protocol
CF	Current fault
SD	Opening and closing state feedback

N
L
Fault   Run&Stop
COM   SD   CF
AUX&SIGN
MT84SR
RS485   COM   CLOSE   OPEN
B A
PLC/DCS
CLOSE OPEN
MT84SR

Dimensions

98.08
79.33
113.74